

## REMARKS

The Examiners are respectfully thanked for the courtesy extended to Applicant and Applicant's attorney during the interview conducted on Wednesday September 1, 2004.

In the Official Action of May 3, 2004, claims 1-7 and 11 were rejected as being unpatentable in view of the Kyrakis patent. Claims 8-10 and 12-14 are allowed.

During the interview, the Applicant discussed the nature of windshear events and the differences between the present invention of claims 1 and 11 and the Kyrakis patent using the attached pictures and illustrations. Specifically, it was noted that in the Kyrakis arrangement, a wind speed was sensed at a distance remote from the aircraft and at a distance immediately in front of the aircraft. The difference in wind speed was then determined. In the present invention of claims 1 and 11, however, the wind speed was sensed at a series of distances in front of the aircraft more than 200 meters away from the aircraft. The wind speeds are then processed to determine whether a windshear event is present.

Since the Kyrakis arrangement is only sensing the wind speed at a single remote distance in front of the aircraft (and using the wind speed sensed immediately in front of the aircraft to determine a difference in wind speed), it is relatively easy for the Kyrakis arrangement to not detect a wind shear event in front of the aircraft.

Accordingly, Applicant respectfully disagrees with the statement in the Official Action that to modify the Kyrakis arrangement so as to arrive at the invention of the rejected claims is merely a matter of determining "an optimum working distance" in front of the aircraft. On the contrary, in the present invention as recited in claim 1

and claim 11, backscattered light is detected from a series of distances in front of the aircraft greater than 200 meters away from the aircraft whereas in the Kyrakis arrangement the wind speeds from only a single remote distance and a single near distance are used to determine a difference in the two wind speeds.

With regard to the amendments to claim 1, Applicant has deleted the recitation of "at least two predetermined different" and inserted "a series of" before "distances in front of the aircraft greater than 200 meters away from the aircraft". As noted during the interview, the word "series" means at least three which further distinguishes the invention of claim 1 over the Kyrakis arrangement.

In paragraph b of claim 1, the phrase "a series of reflected optical responses" was replaced with "backscattered light" as a matter of form and so as to correspond to similar language in the previously allowed claims. Likewise, the phrase "wind profile indicating a windshear condition exists in front of said aircraft in the vicinity of the predetermined different distances" was replaced by "windshear event is present in the vicinity of the back scattering of said backscattered light" again for matters of form and to correspond to similar language in the previously allowed claims.

Claim 11 was amended substantially in the same way as claim 1.

During the interview, claim 2 was also discussed and Applicant noted that one skilled in the art would not combine the Kyrakis arrangement with a GPS system since to do so would not provide any benefit or advantage because the Kyrakis arrangement is not sensing a wind speed at a series of remote distances in front of the aircraft. Instead, in the Kyrakis arrangement, only a single wind speed *difference* (between the remote location and the location immediately in front of the aircraft)

was being determined and there would be no reason for one to know the GPS location of the remote distance.

In the present invention, however, since the wind speed at a series of remote distances is being sensed, using a GPS system enables one to associate a current GPS position with each wind velocity measurement which facilitates the determination of whether a windshear event is present in the vicinity of the back scattering of the backscattered light.


During the interview, a new claim 15 (depending from allowed claim 13) was discussed with Examiner Lyons. Applicant understands that submitting new claim 15 will not present a problem in connection with placing the application in condition for allowance at this time.

Accordingly, a prompt and favorable consideration of the rejected claims is earnestly solicited along with an indication that the present application is in condition for allowance.

Respectfully submitted,

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